MARKET ENHANCEMENT OPPORTUNITIES FOR WATER-EFFICIENT PRODUCTS

STAKEHOLDER MEETING

The Roles of Water Utilities, State, Local, and Regional Governments, and Non-Government Organizations

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Meeting Summary

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1. INTRODUCTION

The United States today faces both water infrastructure and water supply problems. If investment in water and wastewater infrastructure does not increase, the funding gap between water needs and investments over the next 20 years could grow to as much as $224 billion. Just as important, 36 states expect to experience water shortages over the next 10 years, even without drought conditions.

To address this critical issue, the U.S. Environmental Protection Agency (EPA) is planning a national program to promote water-efficient products to consumers. One of the tools under consideration is a water-efficient product labeling program based on EPA's highly successful ENERGY STAR® program, a government-backed program to protect the environment through superior energy efficiency. As a first step toward assessing the needs of a water-efficient product labeling program, the Agency is conducting a series of stakeholder meetings to work toward possible approaches and partnership opportunities to promote water-efficient products. This January 15, 2004 meeting in Austin, Texas, is the second of the stakeholder meetings. The first stakeholder meeting was conducted in Washington, DC, on October 9, 2003.

This report summarizes the presentations and facilitated discussions that occurred at the January 15, 2004 meeting. Copies of background information, press releases, speeches, presentations, brief biographies of the panelists, and a list of the attendees can be found on EPA's water-efficiency Web site at <http://www.epa.gov/owm/water-efficiency/index.htm>.

2. OPENING REMARKS

Welcome:
Miguel Flores, Director, Water Quality Protection Division, EPA Region 6

Miguel Flores, Director of the Water Quality Protection Division in EPA Region 6, opened the meeting by welcoming guests and panelists to EPA Region 6 and Austin. To start the meeting, Mr. Flores identified and briefly discussed some of Region 6's current water issues. These issues include a severe drought along the U.S./Mexico border, stresses on small community water systems, maintenance of the ecological integrity of in-stream flows, contamination of ground water, loss of wetlands and wildlife in Louisiana due to nutria problems, invasive species, and the extraction of water from the Rio Grande such that it no longer reaches its endpoint. Mr. Flores stated that local citizens in a small New Mexico town were, at times, down to a one- to two-day supply of water and that Louisiana is losing 25 square miles of wetlands per year, which is equal to losing the size of a football field every 20 minutes. Mr. Flores indicated that a federal market outreach program for water efficiency is needed to address these issues caused by an ever-growing population and agriculture industry in this area. EPA's roles should include supporting and encouraging water efficiency efforts, supporting a

national level market enhancement program, and collaborating and forming partnerships with stakeholders.

Next, Mr. Flores presented examples of current initiatives on the state level to combat the water shortage issue. Specifically, Mr. Flores stated that three Texas cities—Austin, Houston, and El Paso—and one New Mexico city, Albuquerque, have developed comprehensive water management strategies to deal with water shortages in their areas. He also noted that because of the implementation of individualized strategies, all four of these cities have reduced their per capita water consumption.

Finally, Mr. Flores expressed the desire of Region 6 to be a model for water efficiency, recognizing that EPA must work together with state and local municipalities and governments if it wants to achieve success.

Reaction to First Stakeholder Meeting and Update on Program:
Jim Hanlon, Director, Office of Wastewater Management, EPA

Jim Hanlon, Director of the Office of Wastewater Management at EPA, welcomed everyone to the second stakeholder meeting to explore options for a market enhancement program for water-efficient products. He indicated that the Agency is excited about building on its existing successes in water efficiency and moving in new directions.

Mr. Hanlon's first comments focused on the importance of water efficiency. He stated that clean and safe water is one of the nation's top priorities, and the cost of providing it is greatly impacted by how efficiently water is used. Currently, the gap between the nation's water needs and investments over the next 20 years is potentially daunting, with a mid-range estimate for the clean water capital payment gap of $122 billion, and a mid-range estimate for the drinking water capital payment gap of $102 billion. Mr. Hanlon stated that agencies and other entities must take actions now to help reduce this payment gap for water infrastructure by managing water demand, preventing water losses, and reducing wastewater flows. These actions will not only help reduce the need for water and wastewater infrastructure, but also preserve water supplies. Water efficiency also has environmental benefits such as protection of aquatic habitats due to reduced withdrawals and reduction of power plant emissions due to less energy used to pump, treat, and heat water. The need for enhancing the market for water-efficient products is clear.

Next, Mr. Hanlon discussed the possible effects of the change of administration at EPA on the market enhancement program. Administrator Leavitt was recently the longest sitting governor in the country, serving 11 years in that position. He has been at the EPA for two months and has recently been dealing with clean air issues. Mr. Hanlon stated that the Office of Water is looking forward to speaking to Administrator Leavitt about the water efficiency issue in the near future. Mr. Hanlon spoke to Ben Grumbles, the Acting Assistant Administrator for the Office of Water, the day before the meeting. Mr. Grumbles indicated that he wished he could

have attended the meeting and that water efficiency continues to be a high priority for the Office of Water.

EPA's proposed national market enhancement program for water-efficient products aims to increase water efficiency by:

- Helping consumers identify and understand the many advantages of water-efficient products for residential or commercial use.
- Motivating manufacturers to produce more competitive water-efficient products.
- Encouraging and helping distributors, retailers, and local water utilities to promote these products.

Mr. Hanlon emphasized that the program will be voluntary and will work on a partnership basis with the various stakeholders. The types of products the Agency will evaluate include those for residential and nonresidential use (e.g., plumbing products, appliances, landscape irrigation devices, cooling equipment, commercial kitchen and laundry equipment), and they will be evaluated based on water savings, performance, and market considerations. Preliminary investigations indicate that there is a strong potential to save significant amounts of water and energy through market enhancement activities. While the Agency has a keen interest in product labeling, Mr. Hanlon indicated that EPA will also be investigating other opportunities, such as voluntary standards and design competitions. The Agency plans to coordinate with ENERGY STAR and other voluntary programs to capitalize on synergies and ensure that activities conducted under the water-efficient program do not negatively impact other programs.

Mr. Hanlon reminded the participants that this program is in the beginning stages and that market research and stakeholder interaction are needed to determine which approaches are most suitable for the various technology areas. EPA will make no decisions about products until the analytical work is completed and will solicit stakeholder input before making decisions about products. Mr. Hanlon identified the four current areas of work on the program:

- Procuring consultant services to provide support for further analysis of products, characterize markets, develop a product selection process, and evaluate program approaches and frameworks.
- Hiring additional full-time staff for the project.
- Meeting with ENERGY STAR staff at EPA and the Department of Energy to discuss the inclusion of a water factor in the next revision to the ENERGY STAR clothes washer specifications scheduled for 2007.

- Scheduling additional stakeholder meetings for February 17, 2004, in Phoenix, Arizona, to discuss landscape irrigation products and for April 13 and 14, 2004 in Seattle, Washington, to discuss residential and commercial products for indoor use.

The need for additional meetings and other mechanisms for stakeholder involvement will be assessed after the last scheduled stakeholder meeting.

Next, Mr. Hanlon provided a summary of the reaction to the first stakeholder meeting conducted on October 9, 2003, in Washington, DC. The full meeting summary is available on EPA's water efficiency Web site at <http://www.epa.gov/owm/water-efficiency/index.htm>. In general, Mr. Hanlon believes that most stakeholder groups are supportive of the concept of an EPA market enhancement program for water-efficient products. Some of the notable points from that meeting include:

- The program should be voluntary and national in scope.

- Product performance is a key factor that must not be sacrificed, and performance metrics should be developed early.

- Care should be taken to avoid confusing the marketplace or placing unreasonable demands on manufacturers or retailers.

- More education of consumers, retailers, manufacturers, utilities, and stakeholders is needed.

- Since some products operate as part of a system, system issues are extremely important with respect to performance, testing, and marketing, e.g., plumbing systems and landscape irrigation systems.

- Other countries are interested or involved in water-efficient product labeling, including Australia, New Zealand, Canada, and Britain.

- More needs to be done to foster water-efficient technology research and development.

- Complementary strategies are essential to the successful promotion of water-efficient products.

- The name and logo for the program should be based on professional market research.

In closing, Mr. Hanlon indicated that the Agency considers the formation of a national organization of local and state water efficiency programs to be a potentially valuable component for successful transformation of the market. He also reiterated that success cannot be achieved without the help of all stakeholders.

Welcome:
Kevin Ward, Executive Director, Texas Water Development Board

Kevin Ward, the Executive Director of the Texas Water Development Board, also welcomed panelists and participants to the meeting. Mr. Ward began his presentation with a quote: "We never know the worth of water until the well goes dry." He then went on to explain that this is exactly what has happened in Texas. The state is in dire need of a national water efficiency program to support its efforts to help bring back its water systems.

The state of Texas developed a water management plan in 2002 to combat drought. By following this plan, the state will save 22 gallons of water per capita per day by 2050—a 12 percent reduction in municipal demand. Texas has also formed a water conservation development task force to identify best management practices and evaluate water consumption.

Mr. Ward cited the need for a nationally recognized brand for water-efficient products, similar to what ENERGY STAR has accomplished for energy products. He believes that a national program will promote awareness of water conservation.

The Genesis of Market Enhancement for Water Efficient Products:
Al Dietemann, Water Conservation Program Manager, Seattle Public Utilities
John Flowers, Water Efficiency Program Manager, EPA

Al Dietemann, the Water Conservation Program Manager for Seattle Public Utilities and John Flowers, the Water Efficiency Program Manager at EPA gave a joint presentation on the genesis of market enhancement for water-efficient products.

Mr. Dietemann started the presentation by directing attention to a vital element of water-efficient products—the consumers. He stated that consumers want to know which products are water efficient because these products are increasingly cost-effective. Consumer satisfaction is rising with better performance and lower prices. In addition, Mr. Dietemann believes that a wide variety of stakeholders want to promote and encourage the use of water-efficient products due to their many environmental benefits.

Mr. Dietemann then went into detail about the beginnings of water-efficient product labeling. He stated that the concept of water-efficient labels has been around for many years, consumers are ready for these products, and there is a growing stakeholder interest in leveraged partnerships. Mr. Dietemann encouraged building upon the success of ENERGY STAR and proposed the development of voluntary, instead of regulatory, standards. Currently, many

stakeholders have welcomed a larger effort and many are already promoting water-efficient products. On July 22, 2003, the Mayor of Seattle and the President of Friends of the Earth presented EPA with a labeling consensus statement endorsed by more than 100 diverse stakeholders representing manufacturers; utilities; environmental groups; state and local governments; and trade, consumer, and civic organizations. Also, the American Water Works Association (AWWA) has formally endorsed the concept of labeling water-efficient products.

Stakeholders have asked EPA to help provide reliable product information by creating an easy to recognize national reference tool for water efficiency. Mr. Dietemann believes that labeling should cover a broad range of water using products that include commercial processes and industrial uses, cooling, landscape irrigation, plumbing, and home appliances. Currently, a strong desire exists for stakeholder involvement in the development of testing protocols and voluntary performance standards. Stakeholders recognize that further research, testing, and encouragement in the development of innovative new products is needed. On September 4, 2003, EPA announced plans for a national, voluntary, market-based program for promoting water-efficient products, with a strong consideration of labeling.

Following Mr. Dietemann, John Flowers briefly spoke of the Agency's water-efficient product labeling initiative by focusing on its background and other steps EPA is taking towards this initiative. Mr. Flowers stated that the recent drought in the eastern United States helped focus federal attention on water efficiency needs but that the huge infrastructure investment gap is the primary driver for the program. He also supported the statements made by Mr. Hanlon and reiterated that the Agency understands the importance of stakeholder support of this program.

Mr. Flowers then summarized a few of the other activities that the Agency is conducting with respect to water efficiency and water conservation. Specifically, he reminded participants that the Drinking Water State Revolving Fund (DWSRF) and Clean Water State Revolving Fund (CWSRF) programs can be important sources of financial assistance to help states and systems initiate a variety of efficiency measures and programs. SRF programs can make loans for a wide variety of water efficiency projects such as installing water meters, installing or retrofitting water-efficient devices, installing dual pipe distribution systems, and funding incentive programs. For more information, see EPA's water efficiency Web site at <http://www.epa.gov/owm/water-efficiency/index.htm>.

Mr. Flowers also summarized EPA's revised policy concerning the applicability of the Safe Drinking Water Act (SDWA) to submetered properties. Under the revised policy, a property owner who installs submeters to track usage of water by tenants on his or her property will not be subject to SDWA regulations solely as a result of taking the administrative act of submetering and billing. For more information, see EPA's drinking water Web site at <http://www.epa.gov/ogwdw/wsg/memo_wsg_submetering.pdf>.

In addition to SRF and submetering activities, EPA has developed a sustainable water infrastructure Web site that contains information on many topics, including water pricing. It

covers the concept of pricing and its relationship to water conservation, frequently asked questions, information on affordability, pricing guidance, pricing tools and training, articles and reports on pricing, case studies on pricing and rate-setting, and links to additional resources on pricing. For more information, see EPA's water infrastructure Web site at <http://www.epa.gov/ow/infrastructure/>.

3. PANEL DISCUSSION: STAKEHOLDERS' PERSPECTIVES

The first panel discussion provided some stakeholder views on water-efficient product market enhancement and consisted of six presentations by panelists representing utilities, state/regional governments, environmental and consumer groups, manufacturing, retail, and international perspectives.

Water-Efficient Labeling and the Large Utility: Tony Gregg, P.E., City of Austin, Water Conservation Program

The first presenter of the panel was Tony Gregg, P.E., of the City of Austin Water Conservation Program, representing a utility perspective on the program. Mr. Gregg began his presentation by pointing out the advantages of water-efficient labeling for utilities, including consumer awareness, program savings and symbiosis, and market transformation. Even though many utilities are not actively engaged in conservation, they can receive positive benefits. Mr. Gregg indicated that some products already have tiered labeling, such as clothes washers, and believes that further development would bring positive change to the home appliances industry.

Mr. Gregg then went into further detail about the advantages of water-efficient product labeling to utilities. Currently little information is available to the public on water efficiency. He noted that few products show the amount of water that would be consumed during usage. Building upon those two points, Mr. Gregg stated that uninformed choices lead to water waste and market inefficiencies. Therefore, increased visibility of water-efficient products would increase customer awareness of the overall need for water conservation.

Mr. Gregg also believes that labeling of water-efficient products would result in utility program savings due to reduced research required to run a program, easier marketing, and reduced barriers to small utilities, allowing more utilities to implement conservation programs. Continuing onto the topic of market transformation, Mr. Gregg stated that increased information leads to better informed choices and increases demand for efficient products, driving the market away from inefficient and wasteful products.

Emphasizing the need for further implementation of a water efficiency program, Mr. Gregg cited a past indicator of success—the Energy Policy Act (EPACT) of 1992. This Act created savings for all utilities, created the need to retrofit with efficient plumbing fixtures, and

brought benefits to the utilities. Currently this is the only conservation program that many small utilities can manage.

Mr. Gregg then stated that a lesson learned from the past is that durability of both the product and the savings and performance of the product should be part of the testing process. If consumers are expected to purchase water-efficient products, the products must be long-lived.

Mr. Gregg pointed out that retailers could use a water-efficient label to help sell their products, but labeling commercial products will require a different method. For example, the water efficiency of a commercial product could be highlighted in a product catalogue or used as a sales tool. Commercial products that could be labeled include: large commercial laundry equipment, commercial dishwashers, commercial ice machines, dental and medical vacuum pumps, food steamers, and pre-rinse spray valves. Mr. Gregg than provided some examples of potential savings from labeling commercial products.

- Currently, commercial laundry machines average approximately three gallons of water per pound of material cleaned. A Water Star standard could be less than 2.5 gallons per pound. In Austin, there are approximately 600 commercial laundry machines. Increasing efficiency from three to 2.5 gallons of water per pound of material cleaned would save more than 300,000 gallons of water per day in Austin.

- Currently, commercial dishwashers use one to five gallons of water per rack. A Water Star standard could be less than 1.3 gallons per rack. Because there are approximately 2,500 commercial dishwashers in Austin, increasing efficiency by 0.25 gallons of water per rack would save 22,000 gallons of water per day.

- Currently, commercial ice machines use 12 to 400 gallons of water per 100 pounds of ice made. A Water Star standard could be less than 19 gallons per 100 pounds of ice and promote the use of non-water cooled machines. There are approximately 6,000 ice machines in Austin each making an average of 500 pounds of ice a day. Mr. Gregg noted that a savings of just three gallons per pound of ice would save 90,000 gallons of water per day in Austin, and eliminating water cooled machines would increase savings to 150,000 gallons of water per day.

- Currently, liquid ring dental and medical pumps use approximately 750 gallons of water per day. A Water Star program could label only vacuum pumps, which do not use water. By replacing the approximately 150 liquid ring pumps with vacuum pumps in Austin, 112,500 gallons of water per day would be saved.

- Water-efficient food steamers also hold the potential to save large amounts of water. Currently, boiler type steamers use between 20 to 50 gallons of water per

hour. A Water Star boilerless product would use about one quart of water per hour. Replacing the approximately 500 boiler type food steamers in Austin with boilerless types would save more than 150,000 gallons of water per day.

- Pre-rinse spray valves currently use one to six gallons per minute (gpm). Water Star valves would use less than 2 gpm. Replacing the 2,500 pre-rinse spray valves in Austin with water-efficient valves would result in a savings of 100 gallons of water per day per valve, with a collective total savings of 250,000 gallons.

Next, Mr. Gregg discussed some potential savings from residential product labeling:

- The current standard for showerheads is 2.5 gpm. Under a water-efficient labeling program, the standard could be reduced to 1.5 to 2 gpm. There are currently 270,000 showerheads in Austin. If water-efficient showerheads were used, there would be a savings of 1,900,000 gallons per day in Austin.

- The current standard for toilets is 1.6 gallons per flush (gpf); there is no flapper standard. Under a water-efficient labeling program, there could be two different levels of water efficiency. Level 1 could include a high performance 1.6 gpf toilet with a standard replacement flapper. Level 2 could include a dual flush toilet, which would include1.6 gpf with standard replacement flapper and a 1.0 gpf reduced flush. Water efficiency savings would depend on combination installed, with high performance toilets saving 0.5 to 1 gpf and dual flush toilets saving 1 to1.5 gpf.

- The standard for clothes washers will have water factor of 9.5 in 2007. Under a water-efficient labeling program, clothes washers could, like toilets, have different levels of water efficiency. Level 1 could have an 8.5 water factor, Level 2 could have a 7.0 water factor, and Level 3 could have an 6.0 water factor.

- Currently, there are no water standards for dishwashers. Today's dishwashers use between five and 12 gallons of water per normal load. Under a water-efficient labeling program there could be two tiered levels of water efficiency. Level 1 could use six gallons of water per cycle, while Level 2 could use only four gallons of water per cycle.

- Currently there are no water standards in place for irrigation systems. Under a water-efficient labeling program, two levels could be established. Level 1 could have a maximum system output of 100 percent of evapotranspiration (ET) without customer adjustment while Level 2 could have a maximum system output of 80 percent of ET without customer adjustment. The durability and sustainability of savings for irrigation systems is very important.

Taking into consideration all of these points, Mr. Gregg stated that water-efficient product labeling will be an effective method for promoting water efficiency for some products. Further analysis will determine which products provide the best opportunity for savings.

State/Regional Perspective:
Alice Darilek, Water Conservation Coordinator, New Mexico Office of the State Engineer

Alice Darilek, the Water Conservation Coordinator for New Mexico's Office of the State Engineer (OSE), was the second presenter in the first round of panelists. Ms. Darilek began her presentation by explaining why state governments—and New Mexico in particular—support EPA's water efficiency initiative. New Mexico's OSE has encouraged water conservation as a water supply alternative for about 10 years through various efforts in policy development, technological assistance, and demonstration projects. In particular, education has been a key focus to raise awareness about the importance of water conservation in a semi-arid climate. This education campaign has not been as successful as expected, however. Ms. Darilek believes that the water conservation message was not as widely distributed as needed, though the current drought conditions have helped raised attention to the need for water conservation. New Mexico has been in a severe drought since 2000, and in some level of drought since 1996, making this the eighth year the state has been under drought conditions. The reservoirs are dangerously low, farmers are no longer bothering to plant crops, cattle are being sold, small communities have had to resort to hauling water, and the Piñon pine trees are dying.

Ms. Darilek believes that an EPA water efficiency labeling program would complement and help New Mexico's educational efforts. She believes that a national program can help the states by providing brochures and guides to educate the public about water-efficient practices and encourage the use of water-efficient products. A national program would also increase awareness, bring water conservation in front of the consumers' eyes, and make the states' jobs easier. Ms. Darelik said the Water Conservation Board of New Mexico is willing to support and promote a program like this on its Web site, in workshops, and newsletters. New Mexico's state government would also be willing to work on policy initiatives that would promote tax incentives and a state rebate program to encourage water efficiency practices.

Ms. Darelik also pointed to the fact that New Mexico is not alone in its water conservation crisis. Other western states with water supply issues include California, Texas, Colorado, Arizona, and Oregon. Eastern states with water supply issues include Florida, Georgia, South Carolina, and North Carolina.

Ms. Darelik believes that stakeholders must be realistic about this national water efficiency program. She noted that a national program will involve lots of work and cost a lot of money. There will be hurdles to overcome such as evaluation of products and setting labeling standards. Ms. Darelik also believes that the program should only promote the highest level of

performance. Therefore, Ms. Darelik maintains that EPA must set priorities and implement the program in phases.

Ms. Darelik ended her presentation by reiterating the fact that there is a tremendous amount of support all over the country for this type of initiative. The original petition sent to EPA had over 100 co-signers. Ms. Darelik contends that the water conservation community is not only encouraging and cheering the project on, but also willing and ready to do real work to make it a reality. Finally, Ms. Darelik asked that the Water Conservation Board of New Mexico be considered a working partner in EPA's initiative for water conservation and product labeling.

Water-Efficient Product Labeling Program: An Environmental/Consumer Group Perspective:
Ken Kramer, Sierra Club

Ken Kramer, of the Sierra Club, presented an environmental group's perspective on water-efficient product labeling. Mr. Kramer's presentation covered four key points: (1) the importance of effective water conservation efforts to environmental protection; (2) the prospective value of a water-efficient product labeling program; (3) the issue of mandatory versus voluntary programs; and (4) considerations for designing a successful voluntary program.

Mr. Kramer stated that effective water conservation efforts are important to environmental protection because they reduce the volume of water that must be diverted from environmental flows necessary for maintenance of water quality and fish and wildlife habitat; reduce or at least delay the pressure to build water development projects that may have adverse consequences on fish and wildlife habitat and other environmental values; and support the concept of "living within our resources" that may have positive effects on the approach that people take in the management of other resources, such as energy.

The prospective value of a water-efficient product labeling program was the second point Mr. Kramer touched on in his presentation. He stated that consumers must have adequate information upon which to make product choices. For example, consumers need to be able to act upon their goals of saving money or protecting the environment. Mr. Kramer believes that the efficiency of building conservation choices into everyday product selection by consumers facilitates the ability of consumers to be water-efficient by providing the products that are able to help them reduce water consumption. Furthermore, Mr. Kramer stated that other environmental groups would like to see education programs that promote water conservation. He also stated that most people in the United States still do not know about ENERGY STAR and, therefore, few people make decisions based upon the label itself.

The issue of mandatory versus voluntary programs was the third point made by Mr. Kramer. He believes that a voluntary program for water-efficient product labeling is unlikely to provide the level of water conservation that a mandatory program might produce. For example, a voluntary program might not have universal participation by manufacturers of certain products.

Also, there is currently no legislative directives pertaining to water-efficient product labeling. Mr. Kramer contends, however, that there is value in a voluntary program if the alternative is "no program." Mr. Kramer further emphasized the need for greater attention to the design of a voluntary program to ensure that there are sufficient incentives for manufacturers, retailers, and consumers for participating in the program to make it cost-effective and ultimately successful.

According to Mr. Kramer, there are many things to take into consideration in designing a successful voluntary program to maximize its effectiveness. Considerations include:

- Providing consumers with adequate information to make good choices, such as information showing potential cost savings for water-efficient products on an annual basis.

- Making consumers aware of the existence of the program and the potential benefits to them. For example, an aggressive effort could be implemented using public service announcements, water utility bill inserts, partnerships with non-government organizations, press events, an easily recognizable logo, and other mechanisms to achieve widespread public awareness.

- Promoting the program by making consumers aware of all of the benefits or at least tailoring the emphasis of certain benefits to specific sectors. For example, an aggressive outreach campaign to hunters and anglers, through their membership organizations and licensing officials, could promote water-efficient products as a way of assuring adequate water for fish and wildlife. Mr. Kramer indicated that the Sierra Club would make its resources available to help promote the program.

- Providing training and incentives to retail sales staff to promote water-efficient products in their interactions with consumers.

- Factoring information on the long-term maintenance of the water efficiency of certain products into the labeling criteria, to the extent possible.

- Promoting other water conservation efforts that will enhance the prospects for the success of a water-efficient product labeling program. For example, promoting water conservation pricing mechanisms on the part of water utilities will not only achieve reductions in use directly but will also make it more likely that consumers will seek products what will be more water efficient.

Finally, Mr. Kramer stated that he believes that a water-efficient product labeling program is an important part of an effective water conservation effort. However, the labeling program alone will not achieve all of the necessary water reductions; it must be part of a comprehensive effort. For additional information on what the state of Texas is doing in terms of water conservation see <http://www.texaswatermatters.org>.

Water Efficiency Labeling Program for Plumbing Products: A Manufacturer's Perspective:
Peter DeMarco, Director of Compliance Engineering, American Standard, Inc.

Peter DeMarco, from American Standard, Inc., presented a manufacturer's perspective on water-efficient product labeling for plumbing products. Mr. DeMarco briefly reviewed past water conservation efforts, market realities of today, and what has yet to be achieved in the area of water-efficient labeling for plumbing products.

Looking back on past efforts for water conservation, Mr. DeMarco stated that prior to 1992 there were 22 different state, local, and municipal laws and codes regulating plumbing fixtures and fittings. Then in 1992, EPACT called for one national requirement that became effective in 1994 for residential products and in 1997 for commercial products. EPACT created one standard throughout the country and facilitated research and development and refining of manufacturing techniques that resulted in better performing products. For example, it allowed for focused research and development on high efficiency 1.6 gpf toilets and 2.5 gpm showerheads.

Mr. DeMarco then spoke of market realities today. He stated that currently there are 37 different municipalities and water utilities in the United States that offer incentives for the installation of efficient plumbing products. Many of them have lists of approved products, which unfortunately, all differ. These groups are spending their own time and money developing their own criteria even though they all have the same goals and needs. Just like the adoption of the federal laws facilitated improvements in product performance in the mid 1990s, Mr. DeMarco believes that a voluntary national incentive program with consistent criteria will drive the development of products that offer even more in terms of long-term water conservation.

Mr. DeMarco then proceeded to explain what will be required to move forward in the area of water-efficient plumbing products. He stated that additional water savings could be achieved by developing a water-efficient labeling program for plumbing products. A national program would provide manufacturers with a powerful incentive to develop and market new water saving technologies. However, additional research must be conducted because plumbing systems are dynamic and changes in fixture consumption will need to be verified for efficiency. Mr. DeMarco invited EPA to work with manufacturers and the American Society of Plumbing Engineers (ASPE) to identify through valid research where further reductions in water consumption can be achieved.

According to Mr. DeMarco, there is definite potential for real water savings. Mr. DeMarco emphasized that while manufacturers need to research where they can safely reduce water consumption values in plumbing fixtures and fittings, they can begin immediately to identify product attributes that provide for water conservation at the current mandated levels throughout the life of the product. Mr. DeMarco believes that there is more to be gained in terms

of water conservation by establishing an incentive program that recognizes features of sustainability than there is in looking for further reductions over the current levels. For example, toilet flapper durability, toilet non-adjustability, and ceramic valves are all good examples of sustainable product design that should be recognized in an incentive program.

Mr. DeMarco closed by identifying the next steps for developing a water efficiency program. First, conduct a stakeholders meeting that specifically discusses plumbing products. Next, develop product segment based subcommittees to focus stakeholder input. Begin working with all stakeholders to develop criteria for sustainability and identify areas where immediate reductions are safe. Finally, EPA should determine the scope of research for further reductions.

Water Efficiency, National Programs and Regional Opportunities:
Shana Cockerham, Lowe's Companies

The fifth presenter for the first panel was Shana Cockerham, of Lowe's Companies, who presented a retailer's perspective of water-efficient products. Ms. Cockerham discussed the promotion of water-efficient programs and what Lowe's Companies is currently doing to drive these programs forward.

Ms. Cockerham stated that Lowe's has 950 stores in the United States, serves 9 million customers a week, and has been an ENERGY STAR partner since 2001. Lowe's is currently raising awareness about energy and water efficiency programs by sponsoring grand opening events, conducting promotional events, hosting events in its stores, and conducting energy efficiency and water efficiency demonstrations. Ms. Cockerham believes that stakeholders need to educate the general public that water is not an unlimited resource.

Ms. Cockerham went on to explain the many different ways in which Lowe's is currently promoting water efficiency:

- In 2003, Lowe's distributed free copies of its *Water Solutions Guide* to stores in markets with water supply issues. This guide identifies efficient ways to save water inside and outside the home.

- The company has a water efficiency page on its Web site, which can be found at <http://www.lowes.com/H2O>. On this site, consumers can find tips for water efficiency, a "how-to" library, and a products catalog.

- Lowe's also does limited outreach with water companies.

- Other regional opportunities Lowe's uses to promote water efficiency are grand opening events, promotional events, how-to clinics, and signage support in which customers receive rebates for buying energy efficient products.

In her final comments Ms. Cockerham stated that even though Lowe's has many resources to promote the usage of water-efficient products, the company can't do it alone. A water efficiency program would bring everyone together, working for the same goal.

Promoting Uptake of Water Efficient Technology, **A Canadian Perspective: Connie Gaudet, Environment Canada**

The final presenter of the first panel was Connie Gaudet, of Environment Canada, who gave her country's perspective of the water-efficient product initiative. Ms. Gaudet explained that Canada is the second highest per capita user of water in the world (second only to the United States). Although the country currently has an adequate supply of water, Canada has an interest in water efficiency as water usage is a shared responsibility.

In Canada, all levels of government must participate in water efficiency development. National level groups include the Canadian Council of Ministers of the Environment (CCME), which is an inter-governmental cooperation that promotes Canada-wide standards, and environmental non-government organizations, which represent public and stakeholder interests. The federal level includes entities such as Industry Canada, Environment Canada, Canada Mortgage and Housing Corporation (CMHC), Infrastructure Canada, and the National Research Council, which manages federal lands and facilities, federal acts, legislation and policy. Federal programs address national guidance, codes and protocols, and funding opportunities. Provincial/territorial levels have the primary responsibility for water, including legislation and policy. Finally, the municipal level is primarily responsible for the day-to-day delivery of water services. Currently, all levels have made progress in the field of water efficiency.

Ms. Gaudet then briefly described the developments in water efficiency in which all four entities of the Canadian government have participated. At the national level, the National Action Plan for Municipal Water Use Efficiency has been developed; a database containing shared experiences was developed by the Canadian Water and Wastewater Association (CWWA); and there has been limited testing of water-efficient technologies. At the federal level, public outreach and awareness programs have been developed and the CMHC is overseeing residential water use and quality. Provinces such as British Colombia, Alberta, and Manitoba are developing water conservation strategies. Finally, the municipal level has created local pricing structures, water efficiency programs, and infrastructure management (e.g., leak detection and repair).

Canada is entering a new era of sustainable water use. Ms. Gaudet emphasized that Canada faces many of the same pressures as the United States, such as infrastructure development and maintenance, which demand more sustainable use of water resources. Ms. Gaudet stated that multi-billion dollar investments will be required to update Canada's current infrastructure, and more to create any new infrastructure. In addition, Ms. Gaudet indicated that there are several issues that have surfaced in recent decades such as water use conflicts, droughts on the prairies, and urban sprawl, all of which strain and push water resources to the limit.

Canada must also consider adaptation strategies to climate change and be cautious about the uncertainty of ecological water needs.

Ms. Gaudet discussed the concept of sustainability. Environment Canada aims to promote the responsible and sustainable use of water resources in Canada as a pillar of sustainable development, which is necessary for the continued prosperity of Canadian economy, society, and the environment. Environment Canada intends to promote sustainability by engaging others through partnership development and strategic alliances; knowledge development in social, economic, and environmental sciences aspects; and policy development. Currently, the objective for water efficiency is to develop and promote an appropriate mix of tools and instruments to support sustainable water use across key sectors of Canadian society. Intermediate outcomes include the development and advancement of consistent standards, benchmarks and indicators for water use efficiency across key sectors including water reuse and recycling; the promotion of innovation in development and application of economic instruments (e.g., full cost pricing, valuation of water, permit trading); and the promotion of innovation and uptake in water use efficiency technology (e.g., WaterStar Program).

CMHC was established as a Crown Corporation in 1946 by the Canada Mortgage and Housing Corporation Act to carry out the provisions of the National Housing Act. CMHC is currently the key Canadian source for reliable and objective information on national and regional housing issues. The corporation has a research strategy for residential water use and quality that aims to improve building performance through enhancement of residential water use. This strategy will be implemented via technology testing and uptake and influencing community water efficiency programs.

Ms. Gaudet identified five key challenges in advancing the use of water-efficient technology in Canada: (1) limited capacity in Canada to test and promote effective technologies; (2) consumer uncertainty about the efficacy of water-efficient technology; (3) the fact that the cost to consumers may outweigh perceived benefits; (4) the national plumbing code; and (5) a lack of consistent guides on water re-use and recycling. Ms. Gaudet believes that partnering on a WaterStar program with another jurisdiction is a key step forward in achieving Canada's goals.

In conclusion, Ms. Gaudet stated that a consistent water efficiency labeling program is a key element of sustainable water use in Canada. However, it needs to be coupled with other policy, economic, and marketing measures to ensure uptake. Ms. Gaudet believes that working with others increases our shared capacity to make this work.

4. FACILITATED DISCUSSION: STAKEHOLDERS' PERSPECTIVES

The first panel of presentations was followed by the first facilitated discussion of the day. Fellow panelists and audience members were free to ask questions as well as comment on remarks given by the panelists.

The first comment was given by panelist Tony Gregg, of the City of Austin. Mr. Gregg asked Peter DeMarco of American Standard, Inc. what he believes is key in developing a water-efficient labeling program. Mr. DeMarco responded by saying that stakeholder input in the process is key. He hopes that a consensus can be achieved on how to implement a water efficiency program, even though no one knows exactly how it will all play out.

Ken Kramer, of Sierra Club, asked Shana Cockerham of Lowe's Companies if Lowe's commitment to water efficiency is the exception or the rule for retailers. Ms. Cockerham responded that several other retailers (e.g., Sears, Home Depot) are also working hard to promote energy efficiency, and she expects to see more retailers becoming involved in water efficiency issues. Ms. Cockerham believes that many retailers will use their existing ENERGY STAR platforms to further develop water efficient strategies.

The next comment came from Anna Thurston of Tacoma Public Utilities. Ms. Thurston felt encouraged by the "pep talk" given by the panelists about the water efficiency initiatives and hopes that the Agency can find the political will to make these efforts happen. Ms. Thurston believes that more environmental groups and ENERGY STAR partners should become involved in this effort. She then asked Mr. Kramer, of Sierra Club, if there are any opportunities to leverage the participation of other organizations to promote this effort. Mr. Kramer responded by stating that he believes opportunities exist to work through other organizations to make the initiative happen. Many organizations are beginning to pay more attention to water efficiency, and he believes they will promote a water-labeling program.

Tom Babcock, Water Conservation Coordinator for the City of Phoenix, was the next audience member to comment. He stated that his group is fully committed to this program and that many utilities are endorsing the initiative. Mr. Babcock questioned the likelihood of realizing water savings beyond the first three to five years of the product. He commented that many technologies can be easily modified by consumers, which can result in reducing the expected water savings. In addition, Mr. Babcock questioned how easy it will be for consumers to replace parts that wear out (e.g., flappers in toilets). To deal with these issues, Mr. Babcock believes that a national standard and approach is needed to achieve success. In response to Mr. Babcock's comment, Mr. DeMarco stated that the industry is responding, standards are being developed, and replacement parts will be available and easy to identify. Also, the industry is developing toilets that address the sustainability of water savings over the life of the product. Mr. DeMarco agrees that sustainability is complicated to solve, but contends that it is possible.

Don Vollmar, of Kohler, commented that he liked Mr. Gregg's slides on potential water savings. Mr. Vollmar asked Mr. Gregg if he considered creating more than two tiers in his examples. Mr. Gregg responded that his projected savings using a tiered water efficiency program were just examples. He believes that more tiers could be developed.

Chris Brown, of Chris Brown Consulting, (representing the International Carwash Association), stated that carwash manufactures should be attending these stakeholder meetings.

Mr. Brown indicated that there is a need for water reclamation mechanisms in carwashes to become more water efficient. Mr. Brown asked whether the water-efficient labeling program would consider labeling an entire building like a carwash. Mr. Gregg responded that he would like to hear from the carwash industry, maybe at the upcoming meeting in Seattle, and that the program could consider a systematic approach for dealing with this industry. Mr. Kramer also responded that it would beneficial for consumers to be able to identify carwashes that are considered water efficient so that they can make a choice. Mr. Kramer then commented that the program would also need to develop a plan for addressing water conserving products such as composting toilets and waterless urinals.

David Venhuizen, of Venhuizen Waste Water Management Systems, questioned how the water-efficient product labeling program will address water resource management strategies. Mr. Venhuizen maintains that stressing the benefits of water reuse is important and that centralized wastewater management has been largely ignored by the public.

Pat Truesdale, of the City of Houston, expressed her desire to keep aiming towards the goal of a water-efficient product label. Ms. Truesdale also expressed her concern about budget issues. She stated that the city leaders of Houston are concerned about the reduced revenue associated with a successful water conservation program.

Anna Thurston, of Tacoma Public Utilities, questioned whether integrating water and solid waste technologies will be possible to reduce waste going to landfills while improving water quality. Ms. Thurston also believes that the program should include an education campaign for the landscaping industry. In addition, Ms. Thurston believes that utilities implementing water-efficient practices should be acknowledged and that incentives should be given to utilities to use water-efficient practices. In response to Ms. Thurston's comment, Mr. Gregg stated that the program would probably take a building block approach, addressing the easier issues first and the more complicated issues later, but that nothing would be excluded. Ms. Darilek agreed with Mr. Gregg and stated that it would be important to educate consumers, retailers, planners, and builders.

Mary Ann Dickinson, of the California Urban Water Conservation Council (CUWCC), expressed her support for a labeling initiative. Ms. Dickinson stated that CUWCC represents 316 water utility groups that all support the program. Ms. Dickinson suggested that the labeling initiative start with products that are easily identifiable by consumers; from there the initiative can be pushed forward more quickly. She believes that the program should be phased in sooner rather than later and that the Agency should move as expeditiously as possible.

Eddie Wilcut, of the San Antonio Water System, commended Lowe's Companies for providing a wide range of toilet replacement flappers to its customers. Mr. Wilcut believes that the water-efficient labeling program should prepare a tool (e.g., Web site) to help consumers identify and obtain the appropriate replacement flappers for their toilets. Also, Mr. Wilcut stated that the program should address the issues associated with sustainability of water savings from

low-flow toilets. Specifically, Mr. Wilcut indicated that consumers can replace industrial flush valves in low-flow toilets with a non-low-flow valves and reduce the expected water savings.

Mark Hoffman, of the Consortium for Energy Efficiency (CEE), commended the panelists for identifying the major issues associated with a water-efficient labeling program and indicated that ENERGY STAR faced the same issues when its program began 10 years ago. Mr. Hoffman felt the water efficiency community was well on its way to achieving the goal of a product labeling program. In particular, Mr. Hoffman commended Mr. DeMarco for his comments on the need to create a level playing field for manufacturers. Mr. Hoffman believes that it is difficult for manufacturers to respond to many different water efficiency standards throughout the country. He also asked Mr. Gregg if the water utilities have tried to work together to develop a common list and criteria for water-efficient products. Mr. Gregg responded that water efficiency standards have been developed on a state-by-state basis with slight differences among the states. However, Mr. Gregg stated that the utilities are now developing standard criteria to help manufacturers see which direction they need to take in the area of product development. Mr. Gregg also stated that utilities now realize that they should not conduct open-ended rebate programs, as the expected water savings might be lost when the product requires maintenance.

John Koeller, of Koeller and Company, responded that manufacturers are working on the flapper issue and commented that EPA's water-efficient product labeling program should work with the Leadership in Energy and Environmental Design's (LEED's) new water conservation committee to reduce any duplication of efforts.

5. PANEL DISCUSSION: PUBLIC/PRIVATE PARTNERSHIP OPPORTUNITIES TO LEVERAGE RESOURCES

The second and final panel focused on public/private partnership opportunities to leverage resources and consisted of representatives from utilities and ENERGY STAR stakeholder groups.

Public/Private Partnership Opportunities to Leverage Resources: Bill Jacoby, San Diego County Water Authority

The first presenter of the second panel was Bill Jacoby of the San Diego County Water Authority. Mr. Jacoby focused his presentation on water-efficient devices in California and ways to promote these devices. Currently, the state of California offers rebates on many different water-saving devices. Specifically, the state has sold almost 2.5 million ultra-low-flush toilets, more than 200,000 high-efficiency clothes washers, and more than 13,000 pre-rinse spray valves. California requires all clothes washers manufactured after May 14, 1994 to include an unheated rinse water option.

Mr. Jacoby expressed his desire to see a national labeling program for water-efficient products, and he specifically mentioned how such a program would help the city of San Diego. Mr. Jacoby believes a national program would educate consumers on the advantages of water-efficient products, encourage retailers to promote these products, assist water conservation efforts by identifying the efficiency of products, motivate manufacturers to produce more water-efficient products, and emulate ENERGY STAR's success for energy efficiency.

Mr. Jacoby recommended that the program prominently promote a labeling system. To make the transition into a product labeling system easy and simple, products would have to qualify for inclusion in the incentive programs and be rated as water efficient by the labeling program. In turn, customers would receive this list of qualifying products. Since many retailers are already familiar with ENERGY STAR, Mr. Jacoby believes promoting a water labeling program will be relatively easy for them. Mr. Jacoby also mentioned that retailers are also familiar with the approved list for incentives concept.

Mr. Jacoby then made additional suggestions for specific water-saving devices including clothes washers, ultra-low-flush toilets, and pre-rinse spray valves. Mr. Jacoby recommends that the program address both residential and commercial clothes washers and require a water efficiency factor of 9.5. He then stated that currently, not all ENERGY STAR machines meet California's water requirements. To date, there have been 475,000 ultra-low-flush toilets installed in San Diego County through water agencies' programs. However, no rating system has been readily available to determine which toilets are the most water efficient. Mr. Jacoby maintains that the efficiency of ultra-low-flush toilets ranges from 1.45 to 1.89 gpf based on performance testing conducted by the National Association of Home Builders (NAHB) Research Center. In addition, approximately 1,000 pre-rinse spray valves have been installed in San Diego County. Again, like the ultra-low-flush toilets, there is no rating available to determine the most water-efficient pre-rinse spray valves. According to Mr. Jacoby, the most efficient models can save more than 75,000 gallons per year (gpy).

Mr. Jacoby then listed additional water conserving products to which attention should be given—in particular, irrigation controllers and equipment. Because of the large amount of irrigation in California, additional water conservation in this area would be beneficial. Other water conserving products include: dishwashers, hot water delivery systems, humidifiers, cooling systems, X-ray film processors, and laundry equipment.

Public/Private Partnership Opportunities to Leverage Resources in the Tampa Bay Region:
David Bracciano, Tampa Bay Water Authority

The second presenter on the second panel was David Bracciano of the Tampa Bay Water Authority. The Tampa Bay Water Authority serves approximately 2 million residents with an average daily water demand of 240 million gallons per day (mgd). Mr. Bracciano spoke about

techniques used to address the demands of this area of Florida and how these techniques can be applied to a national level.

Mr. Bracciano explained the role that Tampa Bay Water plays in water conservation in Florida. Tampa Bay Water plans and coordinates water conservation for Southwest Florida, and members actively implement water conservation programs. Operationally, Tampa Bay Water works with members to ensure that average annual savings goals are met; develops tools to help members determine conservation programming effectiveness; provides coordination regarding partnership; and funds public awareness and research programs. Tampa Bay Water has also set up a group called the Conservation Coordination Consortium that screens information to members and sets up presentations for member governments. In addition, the Southwest Florida Water Management District (SWFWMD) provides cooperative funding for conservation and reclaimed water projects. Mr. Bracciano noted that $178 million will be spent in the next five years to accomplish Tampa Bay Water's goals.

Water issues in west-central Florida are numerous. Mr. Bracciano touched on several of these issues:

- Peak water demand occurs during the spring.
- In the region, 25 to 30 percent of water use occurs outdoors.
- The majority of public supply use is residential.
- Water supply sources are switching to less reliable surface waters.
- Requirements for conservation are implemented in the region, including peak and average demand reductions.
- There is a statewide water conservation initiative.
- Florida Green Building Standards have been developed.

Most importantly, water supply sources are limited in southwest Florida. Mr. Bracciano pointed out that even though it seems that the region is rich with water, it is not.

In an effort to keep the public's trust, Tampa Bay Water collects and disperses government information. It collects anecdotal data on devices and measures, depends on third sources and standards for data, uses data to accelerate change, promotes private sector programs, and produces approved criteria/language.

Mr. Bracciano identified several tools used by Tampa Bay Water members to implement water conservation programs. These tools include water conservation best management practices such as toilet rebates; irrigation evaluations and rebates for system components; and industrial, commercial, and institutional water audits. Other tools include regulations such as restrictions, landscape and irrigation ordinances, and water regulators goal-based conservation rules.

Mr. Bracciano presented a few examples of actions that have been taken by Tampa Bay Water to keep the public's trust. First, Tampa Bay Water is taking a number of steps to reduce

water consumption through toilets and has spent approximately $17 million to date to fund these efforts. The funding has been split between members and SWFWMD. As a result, 3.2 mgd have been saved and 4.2 mgd are expected to be saved by 2005. The overall cost of the program is less than $1.00 per 1,000 gallons of water saved. Also, the passive savings of ultra low-flow toilets were 5.25 mgd in 2000. By 2010, 15 mgd in savings is predicted. So far, Tampa Bay Water has identified 425 different toilet makes, models, and model numbers; identified the manufacturers' recommended flapper replacements; and quantified the make, model, and model number of all toilets rebated in the Tampa Bay region as part of its data collection efforts. Mr. Bracciano emphasized that labeling must be based on reliability, durability, and the savings potential of products above regulations.

Tampa Bay Water has also developed irrigation rebates. Currently, 30 to 35 percent of existing homes and 70 percent of new homes have in-ground irrigation systems. Mr. Bracciano indicated that these rebates were provided to change landscape and irrigation system components (increase uniformity and decrease water use). Tampa Bay Water has also developed standards for all new systems and statewide requirements for automatic rain shut-off devices. Mr. Bracciano questioned whether a water-efficient labeling program should promote water-efficient irrigation systems if the water is being used inappropriately.

Mr. Bracciano also described Tampa Bay Water's efforts to develop public/private partnerships, including the promotion of privatized efforts (e.g., performance contracting) and its partnership with the building industry through the development of green building standards. Tampa Bay is currently pilot-testing the use of public funds for private conservation programming.

Next, Mr. Bracciano identified five goals of a national water-efficient labeling program.

- Optimize public funding.
- Remove bias from the promotion of water using devices.
- Increase the value of water conservation in the private sector.
- Assess appropriateness of standards.
- Develop applicability criteria to outdoor and irrigation based products (e.g., regional field testing and approval process).

Mr. Bracciano then made several proposals for what the Agency should establish with the water-efficient product labeling program to meet the identified goals. Program criteria include:

- Baseline water use standards for all technologies identified.
- Methods for dealing with changing baselines.
- Reliability and durability requirements.
- A mechanism for promoting the standards to the public.
- Holistic development of efficiency ratings.
- Marketing strategies.

As a final comment Mr. Bracciano stated that applicable, transferable standards should be developed and applied to contracts, funding, and promotion.

How Energy Utilities Leverage Resources to Promote High Efficiency:
Marc Hoffman, Executive Director, Consortium for Energy Efficiency

The final presenter of the day was Marc Hoffman of the Consortium for Energy Efficiency (CEE). In his presentation, Mr. Hoffman described what the CEE is, what it does, and how those involved with the market enhancement of water-efficient products could benefit from a national organization. Mr. Hoffman indicated that the energy industry went through the same process that the water industry is going through now due to the identification of a huge infrastructure gap for meeting future energy needs.

The CEE is a non-profit organization that was formed by utilities and public stakeholders in 1991 to pursue national strategies linking utility, state, and regional programs for otherwise unachievable energy savings. CEE is a successor to SERP, which pooled utility incentives to make the first super-efficient refrigerator and first national energy efficiency program by utilities as part of a design competition. Today, CEE has 72 members in 23 states and Canada that sponsor 16 national initiatives and are pursuing numerous emerging opportunities. CEE has a staff of 15, more than 50 program administrators, and 21 working subcommittees. CEE's budget is $1.5 million—50 percent from member dues and 50 percent from federal sponsors and supplemental project subscriptions. Both EPA and DOE are CEE sponsors.

Mr. Hoffman described CEE members as anyone using public money to promote efficiency. Members include utility and non-utility administrators of mandated efficiency programs, efficiency advocates and regional organizations such as the Natural Resources Defense Council, state energy and research and development agencies, and DOE's national laboratories. For-profit firms are not allowed to participate in CEE's decisionmaking process. Mr. Hoffman commented that CEE does solicit input from for-profit firms as initiatives are developed.

Mr. Hoffman described the three main functions of CEE: to (1) develop and promote voluntary national energy efficiency initiatives, (2) provide a national organization for all administrators of mandated efficiency programs, and (3) provide a forum for issues common to multiple program administrators. Mr. Hoffman indicated that CEE operates by having members implement the programs and initiatives, not CEE. Furthermore, programs voluntarily adopt CEE specifications, strategies, and/or approaches.

In an effort to encourage all participants in the water-efficient product labeling program to work together and create a national organization, Mr. Hoffman described examples and the results CEE has seen as a result of working together. Examples include: the introduction and success of the high efficiency clothes washer, a successful national brand for energy efficiency, a national brand for premium motors, gains in rooftop units and central air conditioning efficiency,

and industry-to-industry partnerships. Benefits of industry partnerships include leveraging marketing by tapping allies' marketing dollars, tapping the credibility of allies in terms of customer relationships and brands, enlisting other industries to promote high efficiency, and embedding energy efficiency into the minds of other industry managers. As a result of these partnerships, Mr. Hoffman contends that energy efficiency programs now think and act as a national industry.

Mr. Hoffman then identified issues associated with leveraging a national brand. First he stated that utilities have their own, separate and independent interests in the ENERGY STAR program. Utilities pursue utility-driven efficiency objectives and work to advance their own interests while ENERGY STAR must meet multiple stakeholder interests. In fact, the utilities developed their own national specifications of high efficiency; they also strive to raise ENERGY STAR efficiency levels over time.

Secondly, Mr. Hoffman maintains that no single industry can deal with a patchwork of different regulations. A national organization and brand will bring everyone together. Efficiency programs spend tens of millions of dollars on promoting and defending the brand because ENERGY STAR is not just energy efficiency, it's quality, performance and a government seal of approval. Also, partnerships must be formed between manufacturers, retailers, distributors, and service providers. Mr. Hoffman continued by stating that groups may have to compromise on their own objectives, but they will accomplish more if everyone works together.

On the note of working together, Mr. Hoffman shifted his speech to the idea of water and energy efficiency projects working as one unit. Mr. Hoffman stated these two groups have many synergies to leverage, common consumer benefits, and a common interest in serving the public. The two groups also have a history of working together in developing the high-efficiency clothes washer and have overlapping self-interests. For example, saving hot water is always energy efficient and reducing water requirements saves pumping energy. Mr. Hoffman continued by asking, "Why reinvent the brand?" Mr. Hoffman maintains that there is a successful brand for efficiency working on water-using and non-water-using appliances. Since saving water saves energy, extending the brand to more water using devices could leverage the combined water, electric, and gas efficiency program efforts.

Mr. Hoffman suggested a number of next steps. He encouraged continued discussion among water utilities about approaching water efficiency at a national level. He also encouraged utilities to participate in CEE efforts on common appliances. Specifically, he extended an invitation to water utilities to discuss efficiency program recommendations on revising ENERGY STAR dishwasher specifications and on the 2007 ENERGY STAR clothes washer specifications. As a final thought, Mr. Hoffman emphasized that stakeholders must work together on maximizing efficiency in new supply and treatment facilities.

6. FACILITATED DISCUSSION: PUBLIC/PRIVATE PARTNERSHIP OPPORTUNITIES TO LEVERAGE RESOURCES

The second panel of presentations was followed by a facilitated discussion. Fellow panelists and audience members were free to ask questions as well as comment on remarks given by the second set of panelists.

Tony Gregg, of the City of Austin, asked Mr. Hoffman how CEE obtains the data on energy efficient products. Mr. Hoffman responded that the methodology varies from product to product and that most products have a federal minimum standard of efficiency that can be used. Mr. Hoffman also indicated that CEE often looks to Canada for data on testing procedures.

Pete DeMarco, of American Standard, Inc., asked Mr. Hoffman to describe how CEE obtains data from manufacturers. Mr. Hoffman replied that CEE talks to manufacturers individually and treats the data as confidential business information that is not disclosed to other parties. CEE also works with trade associations to try to gather data on the industry as a whole.

Richard Harris, of East Bay MUD, asked Mr. Hoffman how to present information about water efficiency to the consumers. Mr. Hoffman replied that the companies need to present the information to consumers themselves and not rely heavily on EPA.

Elizabeth Gardener, Manager of Water Conservation of Denver Water, asked for suggestions as to how she could sell ENERGY STAR to her board of directors when her utility does not have any link to energy. Mr. Jacoby stated that while ENERGY STAR is a great label, in the case of washing machines, for example, it does not always mean it is water efficient, therefore, problems still remain. Mr. Bracciano stated that a structure will help sell the idea. Mr. Hoffman replied that there is efficiency in leveraging the ENERGY STAR label, as it is a process to use as a starting point.

Gary Klein, of the California Energy Commission, proposed a combined effort for both energy and water efficiency to create forward movement for both programs. He recommended using energy guide type labels for refrigerators that include water usage information. Mr. Klein also recommended that these joint labels be treated differently than normal energy guide labels. Mr. Klein stated that the commission is conducting a public meeting in California in the next quarter of this year to discuss these issues. The California Energy Commission is planning to work together with the water commission to ensure they are on the same page. Mr. Klein also proposed that energy and water be combined under one new efficiency E-STAR or EnviroSTAR label.

Jill Hoyenga, of Eugene Water and Electric Board, commented that the water efficiency program should address water and energy. For example, cooling towers traditionally used energy for cooling and then switched to water to save energy. The program needs to help people choose

between conserving energy or water when there is a conflict. Mr. Jacoby responded by stating the benefits of using recycled water in cases where products have an "either/or" option.

Larry Acker, of ACT Inc., pointed out that the utilities created the appliance industry and are a driving force in the appliance market. Between the energy and water utilities, nearly all households can be reached. Mr. Acker recommends that the utilities work together and combine their efforts. He also identified potential criteria for establishing water-efficient products, including water and energy efficiency, cost-efficiency, consumer acceptance, and availability.

Bill Hoffman, of the City of Austin, recommended that the water-efficient product labeling program carefully analyze the data associated with products, such as ice machines, that use both energy and water.

7. STRUCTURED INPUT SESSION

The next segment of the meeting consisted of soliciting input from meeting participants on four questions pertaining to the development of a national water efficiency product labeling program.

Question 1: What opportunities are available for local, regional, and state efficiency programs to coordinate their efforts to help transform the market (e.g., CEE model)?

Anna Thurston, of Tacoma Public Utilities, commented that energy and water efficiency efforts should be combined. Ms. Thurston indicated that she likes CEE's model and is in favor of a joint energy and water label like E-STAR or EnviroSTAR. Furthermore, she advised that those involved with the water efficiency market enhancement program keep up their networks as a way to stay connected. She recommended using common contacts at the American Water Works Association and other environmental groups.

Allison ten Cate, of D&R International, asked the question "Will this be the group that comes up with the water efficiency community's recommendations for criteria for labeling?" Ms. ten Cate believes that a Web site must be created, informal meetings must be arranged, and someone should be assigned to maintain ongoing communications.

David Allen, of Denver Water, questioned whether the idea of going broader than water efficiency would create additional barriers.

Park Howell, of Park & Company, pointed to the problem of "too much conservation, not enough revenue." In other words, if companies reduce consumption, the money they rely on for revenue will decrease as well. Mr. Howell expressed concern that this mentality would create a barrier for the water efficiency initiative. Mr. Hoffman replied that this issue also occurred with energy efficiency. He stated that utilities must be restructured to decouple profit from volume.

Elizabeth Gardener, of Denver Water, also said that this was an issue it struggled with. She indicated that national standards of efficiency should help convince her boards that conservation is sustainable.

Questions 2 & 3: Which water-efficient products are of most interest to local, regional, and state programs? What factors and criteria do you feel are important in selecting water-efficient products for a national program?

Jill Hoyenga, of Eugene Water and Electric Board, questioned how the program would handle the inefficient use of water by the landscape and irrigation industries. Ms. Hoyenga indicated that in Oregon, utilities are trying to work together with these industries but are finding it difficult.

David Bracciano, of Tampa Bay Water, suggested that criteria be developed quickly using data from CEE or other groups.

Elizabeth Gardener, of Denver Water, suggested that the program deal with the system issues associated with irrigation. Ms. Gardener maintains that an efficient controller is not sufficient for labeling the product as water efficient.

Ms. Hoyenga indicated that the irrigation industry is concerned that its controllers will be discredited. She also recommended using a tiered approach like that used in Australia.

Pat Truesdale, of the City of Houston, stated that the city of Houston lends its support to the labeling industry. Ms. Truesdale also stated that irrigation drives Houston's peak demand in the summertime and agrees that more than controllers need to be assessed. Ms. Truesdale stated that she was not sure whether she liked the CEE model, or that water and energy groups should work together, but she liked the fact that for-profit organizations do not have a say in CEE's decisionmaking process.

Anna Thurston, of Tacoma Public Utilities, questioned how the program would handle waterless urinals and other products that do not use water. Ms. Thurston stated that the utilities are having a hard time promoting these products since they do not meet the plumbing code requirements.

Question 4: Besides product labeling, what other market-based approaches should be considered?

Larry Acker, of ACT Inc., recommended that EPA develop a list of possible products that could be given a water-efficient label before the next stakeholder meeting on February 17, 2004, in Phoenix, Arizona. Mr. Acker believes this list will help manufacturers focus where their efforts should be spent. Maybe new products should be created. Mr. Acker asked the meeting participants to think about "What new areas should be developed?"

Gary Kline, of the California Energy Commission, stated that from the perspective of the consumer, standards seem a bit off and are not understandable.

Anna Thurston, of Tacoma Public Utilities, recommended that the program also look at water conservation as a whole as well as Xeriscaping and other best management practices such as using mulch and proper soil preparation. Ms. Thurston also commented that the utility has a hard time reaching the home builders and recommended that the Agency work with the Green Buildings program to offer incentives to builders for using water-efficient products.

Camilla Dunham-Whitehead, of the Lawrence Berkeley National Laboratory, stated that a baseline standard be established for water efficiency. Ms. Dunham-Whitehead also suggested that EPA use DOE's energy consumption survey to help develop this baseline.

David Bracciano, of Tampa Bay Water, suggested that some type of water certification be offered to companies. Also, Mr. Bracciano stated that the program should consider the situations where companies are ISO-certified and required to use ISO-certified products.

Alison ten Cate, of D&R International, recommended that the program provide certification procurement tools such as a Web site and product listing. To create competition and motivation, Ms. ten Cate believes the program should include national awards. Also, training should be conducted for contractors and distributors.

Peter DeMarco, of American Standard, Inc., indicated that labeling may not always make sense for commercial products. In these situations, Mr. DeMarco recommended that the program include outreach campaigns to the buyers and distributors to educate them on the availability of water-efficient products.

Chris Brown, of Chris Brown Consulting, commented that the Agency should consider integrating labeling with the Performance Track program for carwashes.

Elizabeth Gardener, of Denver Water, championed the tiered program idea. She stated that it will provide and incentive for manufacturers to raise the standards and thus change the baseline.

Ken Kramer, of the Sierra Club, suggested that it is not enough to simply label or market products. The Agency needs to develop a multi-layered, well-coordinated comprehensive program that deals with water efficiency at the national and local levels.

8. CLOSING REMARKS

Mr. Hanlon wrapped up the meeting by thanking everyone for their participation and commitment to this program. He summarized some of the key points made by the panelists including that there is strong support for market enhancement of water-efficient products, research needs to be conducted quickly on potential products, and that the formation of partnerships is important for pooling resources and sharing information. Mr. Hanlon reiterated the challenge made to the utilities to form a national organization that will serve as a platform and bring organizations together in a more formal setting. He also reiterated that EPA's program must be part of a comprehensive water conservation plan to reduce water usage and educate the public.

Mr. Hanlon commented that the Agency will continue to make this initiative a collaborative effort as it moves forward. He stated that he looks forward to continued cooperation from stakeholders at the next stakeholders meeting scheduled for February 17, 2004, in Phoenix, Arizona. Mr. Hanlon also mentioned that the Office of Water runs a water quality cooperative agreement program that awards grants for a variety of issues including water efficiency. The Agency has issued a request for proposal through the *Federal Register* soliciting ideas for grant projects. The deadline for submitting proposals is February 17, 2004. For more information on water efficiency, see EPA's Web site at <http://www.epa.gov/owm/water-efficiency/index.htm> or e-mail EPA at <water efficiency@epa.gov>.